

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) An image recording device, comprising:
a recording head having a nozzle to discharge an ultraviolet-ray curable ink which is cured as irradiated with ultraviolet rays; and
an ultraviolet-ray irradiation device having an ultraviolet light source to generate ultraviolet rays to cure the ultraviolet-ray curable ink, the ultraviolet light source comprising a light emitting diode which generates the ultraviolet rays having an emission wavelength peak in a range between 305 and 375 nm, and a maximum illuminance in a range between 40 and 1000 mW/cm² on a recording medium surface, wherein an image is formed by placing the ultraviolet-ray curable ink discharged from the nozzle on a recording medium and by irradiating the ink on the recording medium with ultraviolet rays ~~by the ultraviolet-ray irradiation device to cure the ink~~, and the ultraviolet-ray irradiation device irradiates the ink within 0.001 to 1.0 second after the placing of the ultraviolet-ray curable ink on the recording medium.

2. (Original) The image recording device of claim 1,
wherein the recording head is a serial head system, and the ultraviolet-ray irradiation device is disposed on at least one of front and rear sides of the recording head in a main scanning direction.

Claim 3 (Canceled)

4. (Original) The image recording device of claim 1,
wherein the recording head is a line head system, and the ultraviolet-ray irradiation device is disposed on a rear side of the recording head in a conveying direction of the recording medium.
5. (Original) The image recording device of claim 1,
wherein total power consumption of the ultraviolet-ray irradiation device is less than 1 kw/h.
6. (Original) The image recording device of claim 1,
wherein the ultraviolet-ray curable ink has a viscosity of 7 to 50 mPa \cdot s at 25°C.
7. (Original) The image recording device of claim 1,
wherein the ultraviolet-ray curable ink contains a compound having at least one kind of oxetane ring as photopolymerizable monomer.
8. (Original) The image recording device of claim 1,
wherein the ultraviolet-ray curable ink contains 30 to 95 wt% of a compound having at least one kind of oxetane ring, 5 to 70 wt% of a compound having

least one kind of oxirane group, and 0 to 40 wt% of at least one kind of vinyl ether compound as photopolymerizable monomers.

9. (Original) The image recording device of claim 1,
wherein the recording medium is made of a material which does not
absorb the ultraviolet-ray curable ink.

10. (Original) The image recording device of claim 1,
wherein the ultraviolet-ray curable ink contains a compound having at
least one of acrylic monomer or methacrylic monomer as a photopolymerizable
compound.

11. (Original) The image recording device of claim 1,
wherein the ultraviolet-ray curable ink contains 1 to 40 wt% of water-
soluble monomer.

12. (Currently amended) A method for recording an image on a
recording medium, comprising:

discharging an ultraviolet-ray curable ink, which is cured as irradiated with
ultraviolet rays, from a recording head having a nozzle disposed therein to place the ink
on the recording medium;

placing the ink discharged from the nozzle of the recording head on the
recording medium; and

irradiating ultraviolet rays from an ultraviolet light source to the ink on the recording medium to form the image,

wherein an emission wavelength peak of the ultraviolet light source is in a range between 305 and 375 nm, and a maximum illuminance of the ultraviolet light source is in a range between 40 and 1000 mW/cm² on a surface of the recording medium to cure the ink, wherein the recording medium is irradiated with the ultraviolet rays by the ultraviolet-ray irradiation device within 0.001 to 1.0 second after the placing of the ultraviolet-ray curable ink on the recording medium.

Claim 13 (Canceled)

14. (Original) The method of claim 12,
wherein the amount of an ink droplet discharged from the nozzle is 1 to 15 pl.

15. (Original) The method of claim 12,
wherein a total ink film thickness is 2 to 20 μ m after the ultraviolet-ray curable ink placed on the recording medium is irradiated with the ultraviolet rays and is thereby cured.

16. (Original) The method of claim 12,
wherein the light source comprises a light emitting diode.

17. (Currently amended) An image recording device, comprising:
recording means having a nozzle to discharge an ultraviolet-ray curable ink which is cured as irradiated with ultraviolet rays; and
ultraviolet-ray irradiating means having an ultraviolet light source to generate ultraviolet rays to cure the ultraviolet-ray curable ink, the ultraviolet light source comprising a light emitting diode which generates the ultraviolet rays having an emission wavelength peak in a range between 305 and 375 nm, and a maximum illuminance in a range between 40 and 1000 mW/cm² on a recording medium surface,
wherein an image is formed by placing the ultraviolet-ray curable ink discharged from the nozzle on a recording medium and by irradiating the ink on the recording medium with ultraviolet rays ~~by the ultraviolet-ray irradiating means to cure the ink~~, and the ultraviolet-ray irradiation device irradiates the ink within 0.001 to 1.0 second after the placing of the ultraviolet-ray curable ink on the recording medium.

18. (New) The image recording device of claim 1, wherein the image recording device includes a plurality of recording heads, and the ultraviolet-ray irradiation device is disposed between the respective recording heads.

19. (New) The image recording device of claim 18, wherein the recording head is a serial head system.

20. (New) The image recording device of claim 17, wherein the image recording device includes a plurality of recording heads, and the ultraviolet-ray irradiation device is disposed between the respective recording heads.

21. (New) The image recording device of claim 20, wherein the recording head is a serial head system.

22. (New) The image recording device of claim 17, wherein the recording head is a serial head system, and the ultraviolet-ray irradiation device is disposed on at least one of front and rear sides of the recording head in a main scanning direction.

23. (New) The image recording device of claim 17, wherein the recording head is a line head system, and the ultraviolet-ray irradiation device is disposed on a rear side of the recording head in a conveying direction of the recording medium.

24. (New) The image recording device of claim 17, wherein total power consumption of the ultraviolet-ray irradiation device is less than 1 kw/h.